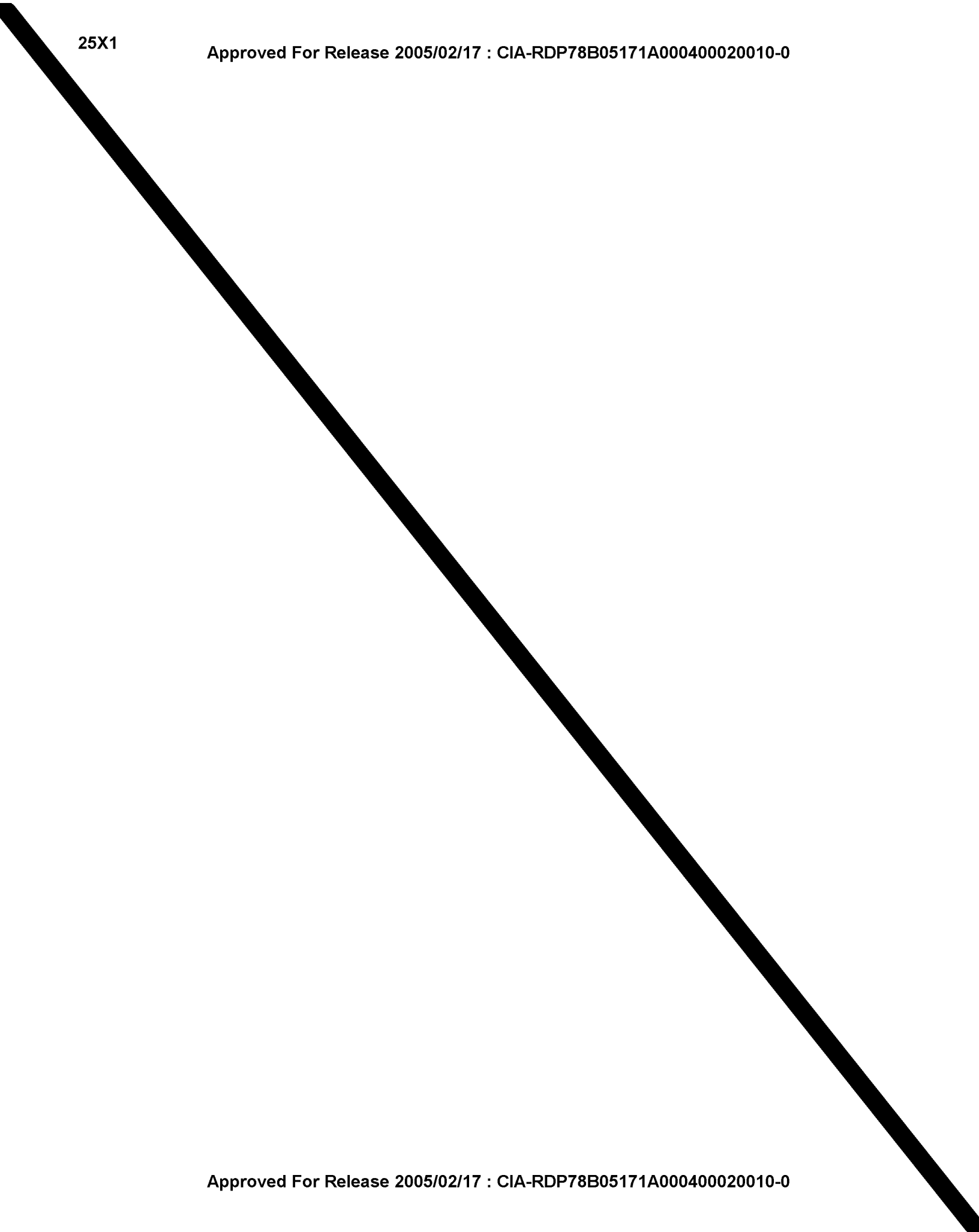


Approved For Release 2005/02/17 : CIA-RDP78B05171A000400020010-0

TEST PLAN
HIGH INTENSITY TRACKING LIGHT SOURCE

1. INTRODUCTION

1.1 The prototype High Intensity Tracking Light Source (HITLS), developed by [redacted] is a modification to the [redacted]1540 Light Table. This modification replaces the existing light sources with a composite system of background and high intensity illumination sources. Each high intensity source is capable of tracking the motions of its respective rhomboid arm in stereo or following beneath the Zoom 240 pod in mono after initial stereo or mono alignment has been made. Each high intensity source will track within the confines of their respective 8- by 13.5-inch formats.

1.2 This modification is designed to fit into the space occupied by the present light sources without disturbing other light table functions. [redacted] approach to this design is to mount a servo-driven high intensity light source just under the glass viewing stage and to provide background illumination by remodeling the existing light sources. Sensors, attached to the microscope carriage, will keep track of the X and Y displacement of the microscope.

1.3 This test plan briefly outlines the test and evaluation program for the HITLS. It is anticipated that testing will begin shortly after arrival of the instrument in TEB. The attached test schedule gives more details.

2. PREACCEPTANCE TESTS

2.1 Preacceptance tests were conducted by RED and TEB personnel at the contractor's facilities during the week of 31 July 1972. These tests established minimum compliance with contractual specification. The equipment is being shipped to NPIC for acceptance, engineering, and operational testing. Preacceptance test results are formally reported in the trip report.

3. ACCEPTANCE TESTS

3.1 After arrival of the equipment at NPIC, the Test and Evaluation Branch will perform a series of tests to determine the degree of compliance with contractual specifications. This testing phase will be accomplished within 2 weeks after delivery and will be documented in an acceptance test report.

4. PERFORMANCE AND ENGINEERING TESTS

4.1 The purpose of this portion of the test program is to determine whether the equipment is capable of performing its intended function, which is to provide enough illumination for viewing imagery with future, low transmission, optical systems and for viewing extremely dense imagery. The [redacted] Zoom 240 and Advanced Stereo Rhomboid Microstereoscope System serves as an example of the transmittance that future equipment might have. The HITLS's design will then be studied for its compatibility to other light tables. 25X1

4.2 A detailed analysis of construction, reliability, maintainability, safety, and human factors not covered by the acceptance portion of this program will be conducted.

4.3 Engineering and performance tests will be conducted consecutive to the acceptance phase of this program. Test results will be reported in the final T&E report.

5. OPERATIONAL EVALUATION

5.1 The HITLS and Advanced Stereo Rhomboid (ASR) with Zoom 240 pod will be made available to potential users within [redacted] for their evaluation and comments. In addition to the ASR, each component is encouraged to test other optical systems with the HITLS. This phase of the program is scheduled to start immediately following the engineering and performance tests.

5.2 A separate project, Zoom 240 Improvements, which uses the HITLS as its light source, will be in its test phase at the same time. In order to minimize time delay to both projects, the Zoom 240 Improvements will be evaluated by IEG and DI-8 on the HITLS immediately following the evaluation of the HITLS with the ASR. This will require close coordination between the operational components and TEB's test engineers so that the Zoom 240 Improvements can be delivered to each Group after the HITLS has been evaluated and before the HITLS moves to the next Group. The Zoom 240 Improvements will not be evaluated by IAS and SPAD until operational evaluation of the HITLS and ASR is completed by all components.

6. TEST AND EVALUATION REPORT

6.1 Upon completion of this test program, a test and evaluation report will be produced. This report will contain details of all tests performed on the HITLS, including operational evaluation. Test results from the ASR and the Zoom 240 Improvements project (when used with the HITLS) and conclusions and recommendations will be included in this report. The T&E report will be distributed throughout NPIC, to EXRAND Committee members, and to qualified parties upon request.

7. ASSISTANCE REQUIRED

7.1 The following assistance will be required for this program:

a. TSG/RED will furnish the ASR and associated B&L Zoom 240 Stereomicroscope.

b. IEG, IAS, DI-8, SPAD, and TSG/APSD will perform an operational evaluation on the HITLS and submit their results to the test engineer.

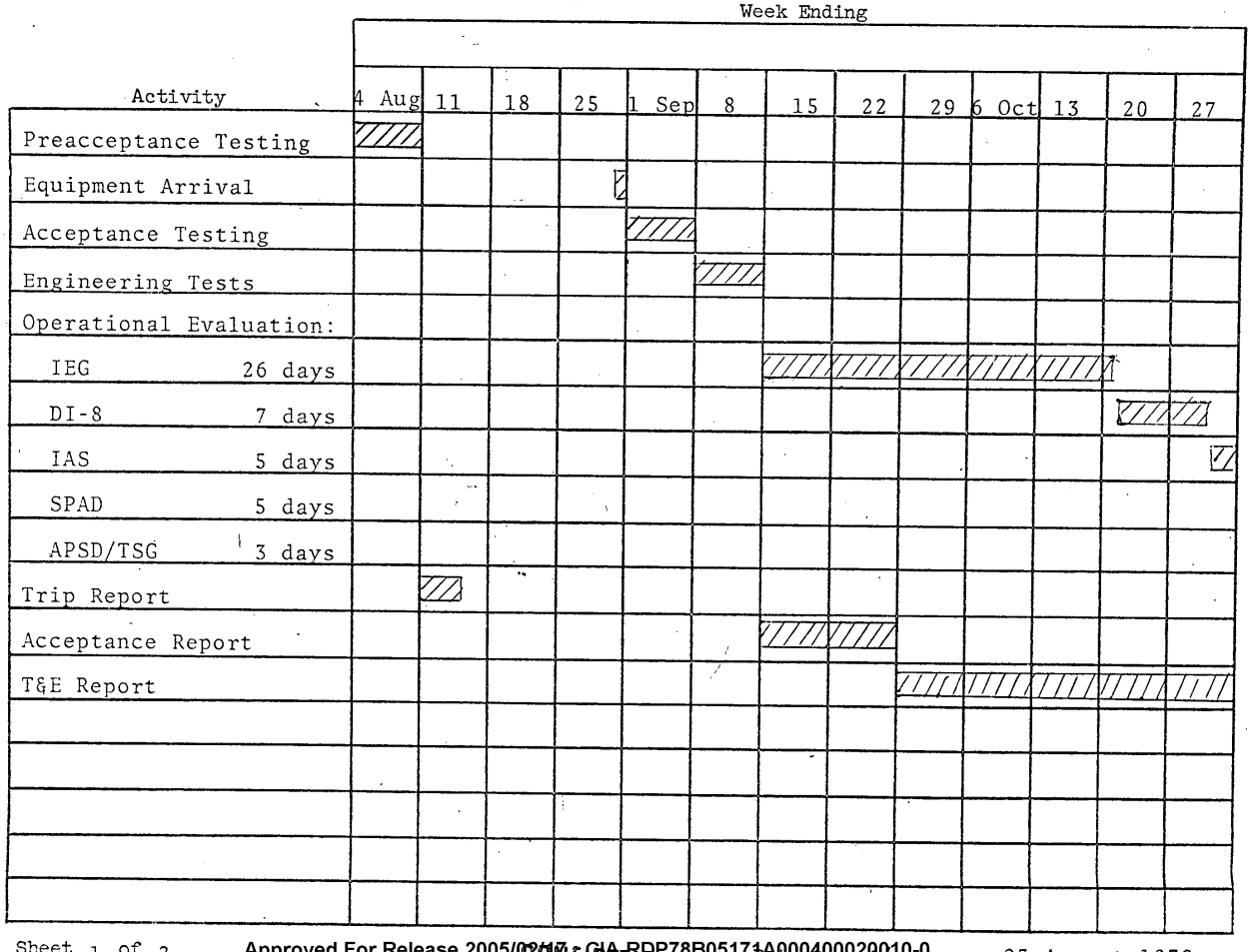
Prepared by:

Approved by:

25X1

Test Schedule

High Intensity Tracking Light Source
instrument



Sheet 1 of 2.

Date issued/revised 23 August 1972

Test Schedule

High Intensity Tracking Light Source
instrument

Week Ending

Activity	3 Nov	10	17										
Preacceptance Testing													
Equipment Arrival													
Acceptance Testing													
Engineering Tests													
Operational Evaluation:													
IEG													
IAS	▨												
DI-8													
SPAD	▨	▨											
APSD/TSG		▨											
Trip Report													
Acceptance Report													
T&E Report	▨	▨	▨	▨									

Sheet 2 of 2 .

Date Issued/Revised 23 August 1972